

## ABSTRACT

A norbornene ring-opened polymer hydrogenated product having a syndiotactic structure and a process for producing the same are disclosed. The

5 ring-opened polymer hydrogenated product contains a repeating unit originating from a polycyclic norbornene monomer with three or more rings in the polymer repeating units, having a weight average molecular weight of 500 to 1,000,000, and having a racemo diad proportion of 51% or more. The process comprises a step of polymerizing a

10 polycyclic norbornene monomer having three or more rings by solution polymerization using a group 6 transition metal compound with a hydroxyl group-containing aryloxy group or the like bonded thereto as a polymerization catalyst to obtain a ring-opened polymer and a step of hydrogenating double bonds in the main chain of the ring-opened polymer.